

Interactive comment on “Meiofauna winners and losers of coastal hypoxia: case study harpacticoid copepods” by M. Grego et al.

Anonymous Referee #1

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The paper is generally clear and well written. However there are several typing mistakes and some of the sentences do not read well in English. I therefore suggest a full revision of the language before final submission.

Besides that, I found the paper interesting and original. Nonetheless I have a major concern about methodology used. The first problem concern the lack of replication. Four chambers were used, one for each type of anoxia. therefore results cannot take into consideration the spatial variability of the response. A second concern is about comparing different time periods. I appreciate that chamber deployment was done at same time (more or less) but then the evolution of the response should be compared vs. normal condition at the same time. Here, for instance, samples after 1 months are compared to the normal condition of 1 month before. This is important especially

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because of population dynamics of the species and other time-related variables which are not measured. A third point concern the use of ANOVA to analyse these data. What was the model of ANOVA used? How anova was used without replication? How the sex was introduced in the analyses as treatment? Individual inhabiting the same chamber were compared and it is very likely they affect eachothers. therefore there are not independent. Therefore one of ANOVA assumptions is violated.

All in all, I think that the paper to be accepted should re-think the way of data analyses and as a consequence their interpretation. Samples exposed to hypoxia cannot be compared to natural conditions sampled weeks before. Probably an autocorrelation analyses would be more appropriated. In addition, animals within he same core cannot be compared in an analyses of variance. Probably in this case a correlation analyses should be more adequate

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